

## ABSTRACT OF THE DISCLOSURE

A plug in communications module for achieving bi-directional communication along a single fiber-optic cable in a fiber-optic network. The plug in module is made such that it plugs directly into fiber-optic communication equipment of standard form factors. Bi-directional communication is achieved by using a low-cost circulator. The plug in module also has a receptacle that is used for attaching a patch cable between the fiber-optic network in the plug in module.

W:\15436\103.1\FDR0000000262V003.doc

WORKMAN NYDEGGER  
A PROFESSIONAL CORPORATION  
ATTORNEYS AT LAW  
1000 EAGLE GATE TOWER  
60 EAST SOUTH TEMPLE  
SALT LAKE CITY, UTAH 84111